

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(Use as many sheets as necessary)

Sheet

1

of

6

**Complete if Known**

Application Number	10/816,432
Filing Date	March 31, 2004
First Named Inventor	RAVKIN et al.
Art Unit	1746
Examiner Name	Bibi S. Carrillo
Attorney Docket Number	LAM2P463



SEP 23 2005

**U.S. Patent Documents**

Examiner Initials	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
LL	A1	2002/0020622 A1	02/21/02	Hanson et al.	
	B1	2002/0121290 A1	09/05/02	Tang et al.	
	C1	2002/0125212 A1	09/12/02	Mertens et al.	
	D1	2004/0060581 A1	04/01/04	Garcia et al.	
↓	E1	2004/0136494 A1	07/15/04	Lof et al.	
LL	F1	2004/0178060 A1	09/16/04	Ravkin et al.	
LL	G1	5,271,774	12/21/93	Leenaars et al.	previously cited
LL	H1	5,343,234	8/30/94	Kuehnle	
LL	I1	5,361,449	11/08/94	Akimoto	
LL	J1	5,472,502	12/95	Batchelder	

**Foreign Patent Documents**

Examiner Initial	Cite No. <sup>1</sup>	Foreign Patent Document No. <sup>2</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number- <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	K1	EP 0 905 746 A1	3/31/99	Interniversitair Micro- Elektronica Centrum VZW	previously cited	<input type="checkbox"/>
	L1	EP 0 905 747 A1	3/31/99	Interniversitair Micro- Elektronica Centrum VZW		<input type="checkbox"/>
	M1	WO 99/16109 A1	4/1/99	Interniversitair Micro- Elektronica Centrum VZW		<input type="checkbox"/>

**Non Patent Literature Documents**

Examiner Initial	Cite No.	Include name of author (in CAPTIAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published				
	N1	J.A. Britten, "A moving-zone Marangoni drying process for critical cleaning and wet processing," October, 1997, <i>Solid State Technology</i>				previously cited
LL	O1	OWA et al. "Immersion lithography; its potential performance and issues", Proceedings of the SPIE, SPIE, Bellingham, VA, US, Vol. 5040, No. 1, February 28, 2003, pages 724-733, XP002294500				

Examiner  
Signature*SC/02*Date  
Considered

12/6/05

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<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

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BSL	A2	2004/0182422 A1	09/23/04	Boyd et al.	
↓	B2	3,953,265	4/27/76	Hood	
BS	C2	4,444,492	4/24/84	Lee	
	D2	4,838,289	06/13/89	Kottman et al.	Previously cited
BS	E2	5,102,494	4/7/92	Harvey et al.	
	F2	5,180,431	1/19/93	Sugimoto et al.	
	G2	5,807,522	09/15/98	Brown et al.	
	H2	5,830,334	11/03/98	Kobayashi	
↓	I2	5,882,433	03/16/99	Ueno	
BS	J2	5,945,351	08/31/99	Mathuni	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
BSL	K2	WO 02/01613 A3	1/3/02	Applied Materials, Inc.		<input type="checkbox"/>
BS	L2	WO 02/32825 A1	4/25/02	The Regents of the University of California		<input type="checkbox"/>
	M2	WO 02/101795 A3	12/19/02	Verteq, Inc.	Previously cited	<input type="checkbox"/>

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Examiner Initial	Cite No.	Include name of author (in CAPTIAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
BS	N2	LIM et al., "Atomic Layer deposition of transition metals", Department of Chemistry and Chemical Biology, Harvard University, Nature Publishing Group, Volume 2, November 2003, Pages 749-754
BS	O2	ICKnowledge LLC, "Technology Backgrounder: Atomic Layer Deposition", ICKnowledge.com, 2004, Pages 1-7

Examiner Signature	<i>Scall</i>	Date Considered	12/6/05
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		Number-Kind Code <sup>2</sup> (if known)			
BS	A3	5,558,111	09/96	Lofaro	
	B3	5,601,655	02/11/97	Bek et al.	previously cited
	C3	5,660,642	8/26/97	Britten	previously cited
	D3	5,705,223	01/06/98	Bunkofske	previously cited
BS	E3	5,709,757	01/98	Hatano et al.	
BS	F3	5,807,522	09/15/98	Brown et al.	
BS	G3	5,830,334	11/3/98	Kobayashi	
	H3	5,882,433	3/16/99	Ueno	previously cited
BS	I3	5,893,004	4/6/99	Yamamura	
	J3	5,945,351	08/31/99	Mathuni	previously cited

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		Country Code <sup>3</sup> -Number- <sup>4</sup> Kind Code <sup>5</sup> (if known)				
BS	K3	JP08277486 (Patent Abstract in English provided)	10/22/96	Dainippon Printing Co. Ltd.		<input type="checkbox"/>
BS	L3	JP05837190 (Patent Abstract in English provided)	03/04/83	Sonitsukusu: KK		<input type="checkbox"/>
BS	M3	JP02280330 (Patent Abstract in English provided)	11/16/90	Mitsubishi Electric Corporation		<input type="checkbox"/>

**Non Patent Literature Documents**

Examiner Initial	Cite No.	Include name of author (in CAPTIAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
BS	N3	Machine generated English translation of JP08277486 (Reference K3)
BS	O3	English Summary of JP05837190 (Reference L3)

Examiner Signature	<i>S. Carrillo</i>	Date Considered	12/6/05
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		Number-Kind Code <sup>2</sup> (if known)			
BS	A4	5,975,098	11/2/99	Yoshitani et al.	
BS	B4	5,989,478	11/23/99	Ouellette et al.	
	C4	5,997,653	12/07/99	Yamasaka	previously cited
BS	D4	6,086,454	07/00	Watanabe et al.	
	E4	6,092,937	07/00	Snodgrass et al.	
	F4	6,108,932	8/29/00	Chai	
	G4	6,132,586	10/17/00	Adams et al.	
	H4	6,214,513	04/10/01	Cai et al.	
BS	I4	6,230,722	05/15/01	Mitsumori et al.	
BS	J4	6,341,998	01/29/02	Zhang	

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		Country Code <sup>3</sup> -Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
BS	K4	JP02309638 (Patent Abstract in English provided)	12/25/90	Fujitsu Ltd.		<input type="checkbox"/>
BS	L4	JP11350169 (Patent Abstract in English provided)	12/21/99	Chemitoronics Co.		<input type="checkbox"/>
BS	M4	JP 2003-151948 (Patent Abstract in English provided)	05/23/03	Seiko Epson Corporation		<input type="checkbox"/>

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BS	N4	Machine generated English translation for JP11350169 (Reference L4)
BS	O4	"Chemical vapor deposition", Wikipedia, the free encyclopedia, <a href="http://en.wikipedia.org/wiki/Chemical_vapor_deposition">http://en.wikipedia.org/wiki/Chemical_vapor_deposition</a> , 2005, Page 1-2

Examiner Signature	<i>SCall</i>	Date Considered	12/6/08
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		Number-Kind Code <sup>2</sup> (if known)			
b5c	A5	6,391,166	05/21/02	Wang	
b5c	B5	6,398,975	06/04/02	Mertens et al.	previously cited
b5c	C5	6,417,117	07/09/02	Davis	
b5c	D5	6,488,040	12/03/02	De Larios et al.	
b5c	E5	6,491,764	12/10/02	Mertens et al.	previously cited
b5c	F5	6,531,206	03/11/03	Johnston et al.	
b5c	G5	6,555,017	04/29/03	Rushford et al.	
	H5				
	I5				
	J5				

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		Country Code <sup>3</sup> -Number- <sup>4</sup> Kind Code <sup>5</sup> (if known)				
b5c	K5	EP 1 489 461 A1	12/22/04	ASML Netherlands B.V.		<input type="checkbox"/>
b5c	L5	EP 1 489 462 A2	12/22/04	ASML Holding N.V.		<input type="checkbox"/>
b5c	M5	WO 99/49504	9/30/99	Nippon Kogaku KK		<input type="checkbox"/>

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b5c	N5	SIGMA-ALDRICH, "Atomic Layer Deposition (ALD)", <a href="http://www.sigmaaldrich.com/Area_of_Interest/Chemistry/Materials_Science/Thin_Films">http://www.sigmaaldrich.com/Area_of_Interest/Chemistry/Materials_Science/Thin_Films</a> , 2005, Pages 1-2
	O5	

**Unpublished U.S. Patent Applications**

Examiner Initial	Cite No. <sup>1</sup>	Application Number	Filing Date	Name of Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
b5c	P5	10/742,303	12/18/03	Boyd et al.	
b5c	Q5	10/817,398	04/01/04	Korolik et al.	
b5c	R5	10/817,355	04/01/04	Woods	

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	B6				
	C6				
	D6				
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	G6				
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	I6				
	J6				

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		Country Code <sup>3</sup> -Number- <sup>4</sup> Kind Code <sup>5</sup> (if known)				
b44	K7	JP 11-31672 (Patent Abstract in English provided)	02/02/99	Hitachi Ltd.		<input type="checkbox"/>
	L7					<input type="checkbox"/>
	M7					<input type="checkbox"/>

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	N6	
	O6	

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		Country Code <sup>3</sup> -Number- <sup>4</sup> Kind Code <sup>5</sup> (if known)				
b44	P6	10/817,620	04/01/04	Woods		<input type="checkbox"/>
b44	Q6	10/817,133	04/01/04	Woods et al.		<input type="checkbox"/>
b44	R6	10/834,548	04/28/04	Hemker et al.		<input type="checkbox"/>
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